ST. BARTHOLOMEW'S

HOSPITAL JOURNAL

Vol. LIII FEBRUARY, 1949 No. 2

EDUCATION

RECENTLY the Medical Curriculum Committee of the B.M.A. published an extensive report of its activities entitled "The Training of a Doctor." The aim of this body was to investigate the present system of medical training and to propound from all that it had seen and heard, a system which would bring the education of the present student into line with the enormous strides in technique and knowledge of Medicine made in recent years. These advances have been made at a breath-taking and ever increasing velocity, and it is only now that the authorities are beginning to realise how inadequate and archaic are the methods followed in the majority of medical schools. The problems of education are by no means confined to Medicine but in no other field are the scales of life and death balanced so precariously between ignorance and knowledge. There is no more exacting master than Medicine nor yet one so loyal and it is therefore imperative that the training for such a task be the finest that can be made available. As medicine advances so are more and more uncorrelated and unexplained facts thrown at the head of the defenceless student until eventually, if he is not very careful, he becomes no more than a stultified medical dictionary and a heavily abridged one at that.

No man can expect to become a Solomon of Medicine and the aim, therefore, of a medical school should not be to teach a mass of indigestible theories and facts which a man must be ready to recite to his examiners should he wish to become qualified, but rather to teach the fundamentals of his subject upon which are built not only the whole structure of medical practice but also of human society—for the two are inseparable.

Galen in his opinion gave eleven years as the shortest time in which a man might become a competent physician and he did not exaggerate. The education of a doctor does not begin with brief sketches of Physics, Chemistry and Biology but when he enters his first school, where his character first begins to be shaped by a liberal education and where he will acquire the foundation of a background and philosophy which will remain with him for the rest of his life. The prime object of education should be to develop and substantiate these first foundations, and this it can only do by giving to its pupils as broad and perfect an instruction as can be achieved. This is the most important part of his education and therefore any tendency towards early specialization should be rigorously avoided before the student leaves school.

In this material world the accent is coming to lie more and more upon the achievements of science with the result that medicine is surely being replaced by a false god of mechanics. The doctor is becoming an automaton, a servant to his knowledge. The old conceptions and philosophies which guided the G.P. of one hundred years ago are being lost beneath a welter of facts applied by rule of thumb methods, and yet it is exactly the qualities of wonder and humanitarianism which those men humbly possessed that are the fundamentals of Medicine.

More and more is the doctor becoming the confidant and guide of his patients. In the past such a role was played exclusively by the parish priest for then the Church was the only hope upon which a man might lay his ills of body and mind. But now that medicine is in a position to provide a real

alternative to the often less effective answer offered by the Church to his troubles, there is inevitably a move whereby the doctor replaces the priest in this role. This move, however, does in no way affect those duties which at one time were exercised by the priest; it merely divides them into two spheres—the one where priest should guide, the other where physician should act. Where one wise man sufficed, two are now necessary and the broad wisdom which must be displayed in the execution of these duties is lamentably a great rarity.

Such qualities are not taught by an inadequate scientific background; a doctor is a humanist first and a scientist second. That science is an essential in the training of a doctor is not questioned, but it should be his servant and not his master. Nothing is more dangerous to such a profession than a conception of its duties based on a small and wholly misleading knowledge of the meaning and application of science.

The report has appreciated these dangers and lays stress on the importance of a liberal pre-medical training but it offers no suggestion as to how such an education can be achieved for that is not its province. The N.H.S. has created an enormously increased demand for doctors, but Mr. Bevan in his grim determination to antagonise and flout any authority which may know better than himself has merely blundered into a morass of contradictions and impossibilities. Doctors are not made in a day, and the education which should be theirs is becoming more and more expensive and therefore available to fewer and fewer of his future bondsmen. Thus the country will be faced in the near future with a N.H.S. staffed by an inadequate number of doctors, who have neither the approach to their subject nor the breadth of mind so vital to the execution of a truly great vocation. The solving of this problem requires a great degree of consideration and clear thinking, neither of which two factors does Mr. Bevan appear inclined to employ, but unless he wishes to see his premature child sink to a depth of unprecedented misery in a few years time, he will very soon have to mend his ways. It is easy enough to offer destructive criticism but no one is inclined to shoulder a burden created by an act comparable to the greater follies of history.

THE PLACE OF ARTIFICIAL IMMUNISATION IN THE PHOPHYLAXIS OF TUBERCULOSIS IN MAN

By A. Q. WELLS, D.M.

Now that almost every country in the world is either using or contemplating using B.C.G. vaccine as part of a national campaign against tuberculosis, it is an opportune moment to consider what is the proper place for vaccination in such a campaign. Before coming to a decision, it is necessary to know the answer to three questions—(1) Is there such a state as acquired specific immunity against tuberculosis? (2) Does increased acquired resistance follow vaccination? and (3) Is B.C.G. the best available antigen to induce increased resistance? The answer to the last two questions is clearly dependant on the answer to the first one.

The presence or absence of specific acquired immunity can be demonstrated in the case of many infectious diseases, whether they are of bacterial or viral origin, by means of some laboratory test or from epidemiological data. Three examples are diphtheria, measles and typhoid fever. A person who has recovered from an attack of diphtheria, or who has had injections of diphtheria toxoid, has an increased level of circulating diphtheria antitoxin which can be demonstrated by a Schick Test. We know that the incidence of diphtheria in persons who are Schick negative is only a minute fraction of what it is in those who are Schick positive. It is possible, therefore, to deduce that specific acquired immunity has followed infection or artificial immunisation, always bearing in mind that the word immunity is being used loosely to mean raised resistance rather than absolute protection. In the case of measles, although there is no test for susceptibility in the individual, we know from epidemiological studies that the incidence of the disease in those who have already recovered from one attack is far less than in those who have never been infected. It is assumed, therefore, that relative immunity follows infection. In typhoid fever vaccina-

tion has been shown to reduce very greatly the incidence of the disease by producing increased specific resistance, an indication of which can be obtained by examining the agglutinin content of the serum.

There is, as yet, no means of finding out the individual state of resistance to tuberculosis by means of any clinical or labortory test. We are forced, therefore, to try to determine whether increased acquired resistance follows infection by means of epidemiological study. Here we immediately come up against a fundamental difficulty. The great majority of urban dwellers have been infected with the tubercle bacillus by the time they reach adult life. This can be shown by the development of a sensitivity to tuberculoprotein and demonstrated by the tuberculin test. Only a small proportion of those who have been infected have ever shown signs of clinical tuberculosis, yet it is certain that they have been infected because many show healed lesions either by X-ray or at post-mortem examination in addition to their specific sensitivity. These infected, but not tuberculous, persons have resisted the spread of infection either because of a natural resistance or because of an individual ability to mobilise acquired resistance soon after infection. It seems more likely to be a natural resistance. A proportion of those infected before reaching adult life are unable to resist the infection and develop clinical tuberculosis as a result of which they may either succumb or gradually overcome the infection. Clearly, then, those who are tuberculin positive when adult represent a selected group and cannot fairly be compared with another unselected group which are those who have never met infection and are therefore insensitive to tuberculin. Yet it is just these two groups who are usually chosen to demonstrate acquired specific resistance following infection. Several surveys are now available showing that the incidence of tuberculosis among nurses in training is greater in those who are initially tuberculin negative than in those who are initially tuberculin positive. If the comparison between these two groups were to be a fair one, then the initially tuberculin positive group ought to have added to it those girls who would have become nurses in that particular group had they not succumbed to tuberculosis before reaching the starting age. That number is manifestly impossible to determine.

The answer to our question, then, is not forthcoming from either a laboratory test or epidemiological data. Are there any indirect means of arriving at a probable conclusion? There is the evidence of animal experiment and morbid anatomical study. Animal experiments have shown conclusively that resistance can be raised by vaccination, whether the experimental animals are the completely susceptible guinea pig or the relatively resistant cow. There is a very large literature on this subject—far too large to attempt to summarise. The animal most used has been the guinea pig, which is a particularly unfortunate choice except that it is a convenient size and readily available. The guinea pig, unlike man, has no demonstrable natural resistance to the tubercle bacillus. It can be infected with very few bacilli and, once infected, disease will continue its inexorable course to death. Attempts to produce an acquired resistance in the guinea pig have been made by using a vaccine of killed tubercle bacilli, bacilli whose virulence has been reduced by laboratory cultivation and strains of bacilli which are naturally avirulent. None of these methods has produced immunity to subsequent infection with virulent tubercle bacilli, but they have produced a resistance which can be shown by the increased survival time after virulent infection compared with that of the unvaccinated controls. This increased survival time may be very substantial. What happens in the guinea pig, however, does not necessarily happen in man. Tuberculosis in man is very different from tuberculosis in the guinea pig, so this experimental evidence cannot be more than a pointer. Experimental evidence in cattle is probably a much sounder guide. Cattle have some measure of natural resistance to the tubercle bacillus, as we know has man. Vaccination in cattle certainly raises resistance, but it is not yet clear to what extent.

This is not the place to discuss in detail the morbid anatomy of tuberculosis in man. A study of this reveals the compatibility of the histological picture with a condition of specific acquired resistance. The histology of a secondary tuberculous infection is very different from that of a primary infection and suggests that acquired resistance has followed the primary infection. It is only fair, however, to note that there may be many other factors at play, which may account in part at any rate for the difference between a

primary and a secondary infection. The position, then, seems to be that a certain degree of specific acquired resistance probably follows infection with the tubercle bacillus; that this acquired resistance is not very great and that more important factors in the resistance to the spread of infection are inherent in the individual and non-specific. This is clearly not a categorical answer to our first question, but it is the best that can be given at the moment.

Does increased acquired resistance follow vaccination? The number of persons now vaccinated with B.C.G. runs into millions. It would seem reasonable to suppose that an answer would be readily forthcoming from this great mass of material as to the value of vaccination. Yet not even the most bigoted supporter would contend that there is scientific proof that increased resistance has followed vaccination. The lack of scientific proof is due partly to bad experiments and partly to the inherent difficulty in devising a human experiment in prophylaxis which will give a clear cut answer. The latter difficulty is probably more accentuated in tuberculosis than in any other disease. As an illustration let us consider whooping cough. The objective in prophylactic vaccination against whooping cough is to prevent infection in the vaccinated subject when *Haemophilus pertussis* is encountered. If the persons in the experiment are divided impartially into vaccinated and controls and if the risk of exposure and conditions of life in the two groups are equal, then the incidence of the disease in the two groups will give an answer as to the efficacy of the vaccine. The fact that no convincing answer to the efficacy of vaccination against whooping cough is at present available shows the difficulty in satisfying experimental demands. Now the problem in tuberculosis is made more complicated by the fact that we are dealing with a chronic process where infection and disease are not synonymous. As we have seen, virtually all urban adults are infected yet few are diseased, and the borderline of infection and frank tuberculosis is not always apparent. So the object of vaccination against tuberculosis will be not so much to prevent infection but to prevent disease. Further, the experiment must be a long term one. There cannot be a quick answer as might be expected if we were dealing with an acute exanthem. The variables in the vaccinated and control groups will, therefore, be correspondingly increased and statistical purity will demand greater numbers if the result is to be significant. Lastly, it is quite certain that vaccination will not produce a solid immunity, so that clinical opinion — a variable inherent in each observer—may easily enter into the interpretation of the result. Comparisons will, therefore, be conjectural and not scientific. If there is no scientific evidence about the value of vaccination against tuberculosis, is there any circumstantial evidence which can be accepted as a basis for further experiment? The answer to this must be a matter of personal opinion. I believe there is sufficient circumstantial evidence to justify an experiment, provided that the experiment is planned to make the conditions of the vaccinated and control groups as nearly identical as possible. This is not the place to discuss how best this could be done.

Is B.C.G. the best available antigen to increase resistance? The answer to this, our last question, is a tricky one. If it is agreed that the answer to the first two questions is by no means clear, then the answer to the third one, which is largely dependant on the answer given to the first two, becomes very unsubstantial. What are the alternatives to B.C.G.? They are a killed vaccine of tubercle bacilli, an extract of tubercle bacilli which is antigenic, and a vaccine made from the murine type of tubercle bacillus (vole bacillus). If animal experiments are used as a guide, then a killed vaccine gives less protection than a live one; no extract of tubercle bacilli has yet been shown to be as potent as the whole bacilli, and the murine type of tubercle bacillus, according to most workers, gives greater protection than does B.C.G.

The murine type of tubercle bacillus occurs naturally as a pathogen of voles and some others of the mouse tribe in Great Britain. It is pathogenic to the usual laboratory animals only in very large dosage, but if the number of bacilli injected into guinea pigs is sufficient progressive disease may follow. In other words it is a potential pathogen for the guinea pig, which B.C.G. is not. The spread of tuberculosis in the guinea pig which has been vaccinated with the murine type and subsequently infected with virulent tubercle bacilli is very much delayed, but the animal will eventually die from generalised tuberculosis. On the other hand, vaccinated cattle may resist entirely the injection of virulent tubercle bacilli in a dose

sufficient to produce progressive tuberculosis in the unvaccinated. Experience with the murine type in man is still very limited. My personal experience in about 150 cases suggests that it is safe. The vaccine dose and the route of vaccination has been varied, but in no case during the past 5 years has there been any evidence that infection has been other than local. That infection with the murine type has taken place is proved by the fact that all persons, who were insensitive to tuberculin before vaccination, have rapidly become tuberculin sensitive and have retained their sensitivity during the period of experiment. This retention of tuberculin sensitivity is sometimes claimed by those using B.C.G. as evidence that increased specific resistance is also present. This may or may not be true, but it must be stressed that sensitivity to tuberculin is no sort of measure of resistance. Sensitivity and resistance are two quite separate states, although one may usually be coincident with the other.

If B.C.G. produces increased resistance in man, then it is rational to conclude that the murine type of tubercle bacillus does also, possibly to a greater degree. If further experience should show that the murine type is safe in man, it has the advantage over B.C.G. that it is a naturally occurring pathogen whose virulence has not been reduced by laboratory culture and can be maintained by animal passage. B.C.G. is a bovine tubercle bacillus whose virulence has been reduced by successive cultures in the laboratory until it is no longer pathogenic even to the wholely susceptible guinea pig. Its degree of virulence cannot be maintained by animal passage and it is possible that it may become so degraded that it is no longer antigenic. Controlled trial of the murine type is much needed before any adequate conclusions can be drawn as to its efficacy.

Having attempted to answer the three questions posed at the beginning, the proper place of artificial immunisation in the prophylaxis of tuberculosis can be assessed. It seems that artificial immunisation has a place, but a minor one. Any campaign which depends in the main on vaccination will almost certainly fail. Unfortunately the problem is not so easy of solution as that. The ultimate objective in the eradication of tuberculosis must be the eradication of infection. In order to do this the risk of infection must be reduced as rapidly as possible. A preliminary to reducing the risk of infection is raising resistance so that infection does not lead to disease. Here vaccination may help, but the greater degree of resistance is almost certainly non-specific and dependant on social and economic conditions.

MONSIEUR VINCENT

By PETER F. JONES, F.R.C.S.

July the 5th, 1948, saw the medical vocabulary lose that old, kindly, hated, misunderstood word "charity." The spirit which founded our voluntary hospitals to care for "the sick poor, which fired a Rahere and a Florence Nightingale, had done its work. A State and a nation, awakened by just such people and their successors, had recognised and met their responsibility.

We have passed beyond the medieval faith that the sinful are poor and the good are rich, beyond the Poor Law and the Workhouse, beyond the day when to be workless was to starve. We can look back 100, even 50, years and realise that "medical progress" is indeed a reality. Never, physically, have we been able to do more for our patients.

At such a time, then, it is fitting to examine the way in which we treat our patients as well as their diseases. We are rather tired, perhaps, of being reminded about our regard for the whole patient, and yet never, perhaps, are we more tempted to forget it.

The general practitioner of the National Health Service is well aware of this as he surveys his surgery full to the doors morning and evening, and as he sees, more and more, his surgery becoming a sorting-house for the specialities. We may suspect it in hospital as special investigations lead us to a more exact diagnosis, in which the patient's words and general make-up perhaps play little part, as our special departments increase and treatments become more skilled and complicated.

Yes, we may be tired of hearing all this, but strange things happen when men gain medical degrees or don white coats. In their own eyes—and those of their patients—they gain Authority. So, indeed, would anyone who does, in fact, hold the issue of life and death in his hands, now and then. Unhap-

pily, our sense of the dramatic places *us* at the centre of the scene. Luke Fildes's picture may be outdated now, but its title is still " The Doctor " and he is still the centre of the picture.

So I have found it refreshing and humbling to see a film of a man who was very much the centre of his own special world of service to humanity and who yet kept fiercely before him, and all who served with him, his true status.

The film is *Monsieur Vincent* and it is the story of a priest in seventeenth century France. We see his developing sense of what he must do. At first he is content to relieve the bitter need of the time with soup kitchens and medicines, but almost at once his courage takes him to a stand against the ignorance which will wall up a woman in her own home, along with her healthy child and howling dogs, because she has an unknown fever, perhaps the plague.

We see him share the awful experiences of the royal galley slaves as they make sport for their masters in their sufferings and their deaths. We see him share the transitory, pathetic joys, the hard enduring sorrows of the poor of Paris. We see the rich ladies coming to help him in his relief work and his slow, painful realisation that they come for diversion and not in answer to the very need from which they draw their wealth and ease.

At the end we see him the Master of Saint Lazare, with a thousand sick and aged folk under his gentle, wise care, quick to detect the one who will not help himself when he can, ever ready to help the needy who will not ask; a servant who does not work for money or thanks or for a halo in heaven, but out of a continuing love and a wise sympathy which alone can make his service—his charity—an honour and a blessing to receive. In his heart there burns more and more clearly the conviction that the poor and the sick are indeed his *masters,* and he their servant.

In print this may sound sentimental, but that is the last word you will use as you leave the cinema, with the strong, wise, courageous face of Monsieur Vincent before you.

He has, I am sure, a word for us in these days. Not a word we have not heard before, but a word which we all forget. A word for the days when we are specially busy and cease to worry that patients must wait; a word for the times when our patients seem dull and unresponsive and we are near to condescension or patronage and doubt whether all our explanations are worth the time they take; a word for the day when we have made a neat diagnosis and are rightly happy and encouraged.

Just then, when our white coats seem brightest and our calling so excellent a one, as we speed from this job to that, we should welcome Monsieur Vincent at our elbow as he shows us that the light from the window falls over our shoulders onto the patient's hopeful face.

ANNOUNCEMENTS

BIRTH

BENISON—On December 30th, 1948, to Eileen, wife of Ronald Benison, F.R.C.S., a daughter.

ABERNETHIAN SOCIETY

Meetings to be held in February, 1949.

Thursday, February 10th—Clinical Evening.

Thursday, February 24th—Sir Hugh Cairns on " Blunt Head Injuries."

Both meetings will commence at 5.30 p.m., the latter being held in the Clinical Lecture Theatre.

APOLOGY

The Editor wishes to apologize for the omission, in our last number, of the author's name under the heading " Disappearing Diseases." The article was a clinical lecture, delivered by Mr. Reginald M. Vick, M.A., M. Chir., F.R.C.S.

EDITORIAL NOTICE

We announce the resignation of the Editor, Mr. A. D. Munroe-Faure. He is succeeded by Mr. J. M. L. Gilks. Mr. G. C. R. Morris has been appointed Assistant Editor.

LABORATORY AIDS TO BACTERIOLOGICAL TECHNIQUES

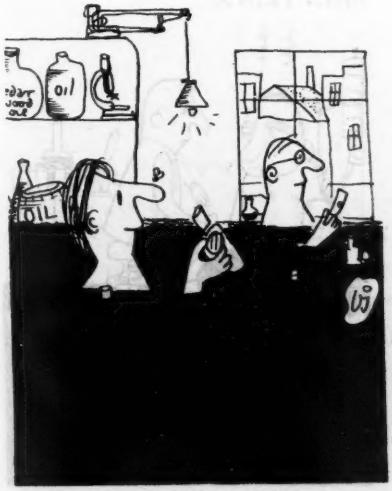
SOME HINTS TO THE ADVANCED DIAGNOSTICIAN

Illustrations by Vishnu

Many people look upon bacteria as enemies of mankind but without microbes we would die of starvation. There is no society of Prevention of Cruelty to Microbes. They are roasted boiled or poisoned and no one makes a fuss except to hail the advent of a new poison.

Prof. Sir ALEXANDER FLEMING, M.D., F.R.C.S., F.R.S.
St Mary's Hospital,
London.

MICROSCOPIC TECHNIQUE

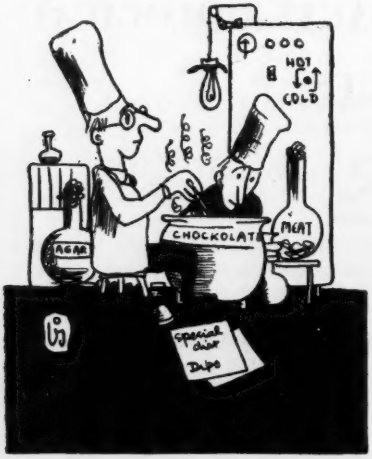


Some workers have their own peculiar version.
Of getting good results with oil immersion.

EXACTING STRAINS

Some strains are troublesome in needing.
Special diets and very careful feeding.

MEAT-EXTRACT MEDIA.



A factor never mentioned in the books.

A well run lab. should have experienced cooks.

STAINING METHODS.

Correct technique in intravital staining.

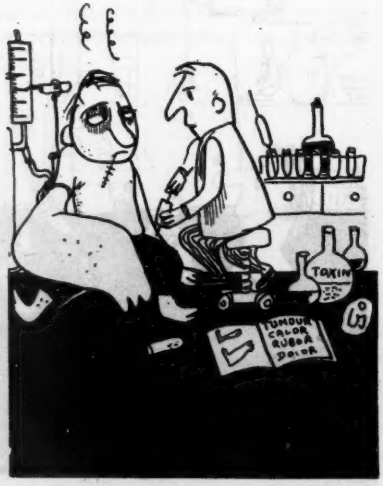
Requires a lot of skill and special training.

CENTRIFUGE-TECHNIQUE.

Some workers have been known to get too keen.

When seeking viruses with this machine.

SKIN-TESTS.



Comparing slightly different skin reactions.

Assists in diagnosing some infections.

AGGLUTINATION-REACTIONS.

Some Dreyer tubes, pipettes and fluids too.
Provide a good bacterial "Who's Who".

PENICILLIN-THERAPY

Giving penicillin in massive doses.
May develop strange "syringe neuroses".

REFERENCES

A System of Bacteriology. Medical Research Council.

Cowdry, F. V. Microscopic Technique. Baltimore, 1943.

Fleming, Sir Alexander. Penicillin—It's Practical Applications. Butterworth's, 1947.

Gradwohl, R. B. H. Clinical Laboratory Methods and Diagnosis. A Text Book on Laboratory procedures with their interpretations. H. Kimpton, London.

Mallory, F. B. Pathological Technique. Saunders, 1938.

Svederg, T., 1937. Nature. London, 139. Supp., 1051.

Underwood, W. B. A Text Book of Sterilization.

(I wish to record my gratitude to Sir Alexander Fleming for his kindness in writing a foreword to this article and to Prof. Lawrence P. Garrod for his advice and criticism.—VISHNU).

A CASE OF ACUTE CONGESTIVE HEART FAILURE DUE TO SYPHILITIC AORTITIS AND TREATED WITH PENICILLIN

By GEOFFREY BOURNE, M.D., F.R.C.P.

THE treatment of syphilitic disease of the heart and aorta has become more hopeful since the introduction of penicillin. The general principles underlying the treatment, however, have remained unchanged, for the action of penicillin on the spirochaete and the possible subsequent reactions in the body, are in some ways similar to those produced by arsenical compounds. Satisfactory treatment of this condition can only be accomplished if the underlying pathology is borne in mind in each case. The first reaction of the aorta to the effects of the spirochaete is that of a subacute inflammation with its associated local hyperaemia and oedema. As the infection continues, the factor of fibrosis enters into the picture with the result that contraction of the inflamed tissue slowly and progressively develops. The spirochaetes are present in the middle coat of the aorta during the whole of these stages, so that the therapeutic substances, whether arsenic or penicillin, is apt to kill them in considerable quantity *in situ*, thus producing an increased inflammatory reaction which may be great, moderate, or minimal. A severe inflammatory reaction will produce a rapid coronary ischaemia, which may be fatal. This inflammatory reaction is as likely to occur during the early active inflammatory stage as during the late stage, but it is just at this early stage that successful treatment can be expected. If treatment is started when the process of fibrosis and scarring is already advanced, the healing or scarring process may be accelerated by the therapeutic measures, and this also produces coronary ischaemia.

It is thus extremely important to try to foresee whether the effect of the antisyphilitic remedy will be to kill the spirochaetes without severe local reaction, or whether it will be to accelerate the fibrotic healing process. The tissue which will be dangerously affected by either of these alternatives is the coronary arterial opening into the aorta. Unpleasantly severe local swelling of the aorta can cause death by obstructing the coronary mouths rapidly, and this can usually be avoided by careful initial dosage; the fibrosis characteristic of healing during the later stage of aortitis threatens to close the coronary mouths much more slowly, but equally fatally, and this is inevitable whether treatment is given or not. It is clear that the ideal is to administer the antisyphilitic remedy so carefully that there shall be no acute or rapid local oedema of the aorta, but to administer it early in the disease and in adequate amount, before fibrosis has had time to occur.

The decision whether one is dealing with an early or a late stage of syphilitic aortitis should be made after particular attention to certain definite points. The condition, so far as the heart is concerned, usually manifests itself in one of three ways; shortness of breath and evidence of early heart failure from coronary obstruction due to inflammatory oedema; angina of effort from the same cause; and accidental discovery of an aortic regurgitation in an individual known to have had a healthy heart some few years previously. Physical examination is also helpful in deciding the age of the lesion. If aortic regurgitation is present, a slight leak suggests a fairly early stage of the disease, the size of the leak being judged by the position of the apex beat and the blood pressure reading. If the apex beat is little displaced to the left and is in the fifth space, rather than the sixth, the leak almost certainly is slight or very recent. If the diastolic blood pressure is normal or but little lowered, the same deduction is probably correct. If, however, the apex beat is displaced into the sixth space and well to the left, and if the diastolic pressure is much reduced, the leak is probably very considerable.

Another point of importance is the X-ray appearance of the aorta and of the heart. Should the aorta be normal in appearance, as it very occasionally is in such cases, the lesion is probably early. If the aorta is much elongated and dilated, and particularly if its outline is irregular, the lesion is obviously advanced. By judging the degree of enlargement, irregularity and elongation, it is thus possible to obtain some sort of estimate as to the stage of the aortitis. The size and shape of the left ventricle will be easily measured by cardioscopy, and enlargement of this chamber will also be proportional to the extent of an aortic valvular lesion.

The case here described is of great interest both because of the severity of the symptoms and signs, and also because a correct answer to the question whether these manifestations were due to early aortic oedema and inflammatory change, or whether they were due to subacute fibrotic change, had to be obtained or at least deduced. Because the history was very recent, because the apex beat was only in the fifth space, and because there was practically no aortic leak as judged by the diastolic pressure although the murmur of aortic regurgitation was present, it was decided that the symptoms and signs were those of aortic oedema and early inflammation, and not of the more chronic aortic fibrosis.

The patient was first seen on the 10th May, 1948. He had been for four months suffering from increasing shortness of breath on exertion. Whereas he had previously undertaken heavy work on his farm, he could now barely walk across the room without dyspnoea. For the previous three weeks swelling of the feet and legs had been noticed, and this had been increasing steadily so that the swelling had reached the thighs on the day of examination. For the previous week he had had attacks of shortness of breath at night, coming on suddenly and interfering seriously with his sleep. Orthopnoea had also been present during this same period. The congestive heart failure had thus been unusually rapid in onset and severe in degree. There was no history of anginal pain. He had never had rheumatic fever, scarlet fever, or other rheumatic infection. At a boy of 15 he fought against the Russians in the Russo-Polish war following the first World War, and was taken prisoner. He shared a cell with a Russian who was syphilitic, and it was suspected that infection might have occurred at this time. However, subsequent blood examinations were then negative. He led an active, vigorous life until the Second World War, when he fought in the Polish army and after the collapse of Poland, made his way across Europe on foot and eventually arrived in France. He then joined up again and had considerable active service in the Polish forces, during which time he was dropped as a parachutist three times into France on secret missions. There had been possibilities of venereal infection, but no definite history of this at any period. He got married four years ago, and his wife has since had a healthy baby.

On examination he looked extremely ill, pale, and distressed. The effort of undressing made him very short of breath and he was unable to lie at all flat on the examining couch. There was some distension of the veins in the nose, but no excessive arterial pulsation. There was slight cyanosis in addition to the pallor. The heart rhythm was regular, but the rate was increased (120). The blood pressure was 118/80. There was no excessive systemic arterial pulsation. The pupils were of unequal size, the right being smaller than the left. There was normal reaction both to light and to accommodation. Examination of the chest showed that the apex beat was present in the fifth space, this being slightly displaced to the left, the distance from the mid-line being 5 inches. No thrills were present. There was a local diastolic murmur at the aortic base conducted down the left border of the sternum to the apex. The lungs showed definite evidence of pulmonary oedema, many râles being present at both bases, especially on the right side. There was a lumbar pad of oedema. The liver was enlarged three fingers below the costal margin on the right side and was tender, and a small quantity of free fluid was present in the abdomen. Oedema of the feet was considerable, and this extended to both thighs. The urine contained a cloud of albumin.

The electrocardiogram showed left axis deviation and inversion of the T wave in Leads 1 and 4, typical of left ventricular stress. X-ray screening showed definite enlargement of the left ventricle but no enlargement, general or local, could be seen in the aorta.

He was referred to Dr. Aldren Turner for a neurological opinion, and his report follows. He had no symptoms definitely referable to the nervous system except that his wife said his memory had been becoming rather less good during the preceding three months and that he had attacks of violent temper lasting a few minutes at a time, which was a new feature for him.

On neurological examination both pupils were small and slightly irregular, the left being larger than the right; they both reacted somewhat sluggishly and through a small range of light, but they contracted briskly on convergence. There was some impairment to pin-prick over the front of his chest but apart from this and the findings in the pupils there were no other abnormal neurological signs.

A lumbar puncture was done on the 19th May, 1948, and the initial pressure was 230 mms., though this rise was probably due to congestive heart failure. The fluid was clear and colourless with no clot formation: it contained 42 lymphocytes, 1 polymorph, and 120 red blood cells. The protein content was 50 mgms. per 100 cc. and globulin was not increased, Wassermann reaction was strongly positive, and the Lange curve was 0011100000.

The diagnosis was very suggestive of a syphilitic aortitis with congestive failure, due to occlusion at the mouths of the coronary vessels. The recent onset of symptoms, and the general excellent health of the patient previously, suggested this occlusion was probably the result of recent inflammation and oedema of the aorta following a previous syphilitic infection. There was no evidence clinically or in the electrocardiogram of any coronary artery disease, and no indication of previous rheumatic carditis. The Wassermann reaction was found to be strongly positive.

He was, therefore, admitted to a nursing home on May 15th, 1948. The heart rate in bed was at first 118. The respirations were 30 per minute. The heart rate gradually fell over a period of a week, but remained at the level of about 90 for the next two months. The respiration rate fell at the end of the week to 25, but remained at or just above this figure for a further fortnight although he was resting in bed. Oxygen was administered for periods of three hours twice daily by mask for the first seven days. Morphine was required and was given for sleeplessness for the first week also.

In view of the very considerable oedema, mersalyl was administered by an intramuscular injection in doses at first of ½ c.c. and then of 1 c.c. at weekly intervals for three doses. This was preceded by ammonium chloride 45 grains during the preceding day. A good diuresis was obtained each time. As a result of this treatment the shortness of breath slowly subsided, the resulting distress disappeared, and the oedema vanished. The last of the swelling was visible at the end of eight days. The mersalyl was continued, however, because of the considerable pulmonary oedema which was shown by fine basal râles, for ten to fourteen days from his admission to the nursing home. The history of his heart failure subsequently was that the tachycardia remained for three months, after which the heart rate gradually subsided to between 70 and 80 per minute at rest.

Early in August, 1948, three months after his first admission to the nursing home and after he had returned home, he had a series of severe attacks of nocturnal dyspnoea. These were very distressing and were accompanied by an increase in his still rapid heart rate from 90, to between 100 and 110. The attacks lasted from half-an-hour to one hour, and were clearly due to bronchial spasm from a second attack of left ventricular failure. He was, therefore, given daily injections of cardiophylin (0.24 grammes), intramuscularly for seven days, and the effect of this course was quite dramatic. The oedema of the legs and feet, which had returned, disappeared quickly and the breathless attacks subsided so that he slept well. Following this incident, he made an uninterrupted recovery.

After consultation with Dr. C. S. Nicol anti-syphilitic treatment was started, in spite of the severe congestive failure, within a few days of his admission to the home on May 15th. He was given at first a mixture containing potassium iodide, 5 grains t.d.s. p.c., but this was stopped after three days because it produced an iodine eruption on his face. One week after his admission, he began to receive bismostab injections intramuscularly. He was given twelve doses in all, the first being 0.1 grammes, the second 0.2 grammes, and the third 0.3 grammes. All the subsequent injections were of a strength of 0.3 grammes. During this period the state of his gums remained satisfactory, and the urine remained clear of albumin. After an interval of four months, his cardiac condition remained satisfactory. The blood pressure was then 160/88. The left ventricle was considerably enlarged on X-ray screening, and the electrocardiogram was unchanged, and still showed evidence of left ventricular stress. He was given the following course of penicillin starting on October 19th: 1,000 units three-hourly for four doses, 2,000 units three-hourly for four doses, 4,000 units three-hourly for four doses, and then 10,000 and 20,000 units each for 4 doses at three-hourly intervals. On the third day he was given 160,000 units per day in two separate doses. This was continued until he had received 3 Mega units in all. He received no other treatment for his syphilis. During the whole of his anti-syphilitic therapy, he manifested no reaction of any kind, either general or cardiac.

On December 9th, 1948, he was said to be wonderfully well. He was moving about his farm normally over rough ground, pasture, or smooth ground, and could manage two miles without shortness of breath. He had avoided lifting and physical strain as a precautionary measure. He had been sleeping well and had had no more nocturnal dyspnoea. The heart rate had kept between 70 and 80. He had only had one breathless attack which lasted four or five minutes, when he was extremely annoyed as the result of a discussion. His wife was very pleased with him and stated that he was much better than he had been a year before. There had been no return of any shortness of breath.

It would, therefore, seem that the attack of heart failure was due to recent inflammatory swelling of the aorta from syphilitic aortitis, which interfered with the coronary flow. This interference must have been rapid and considerable for the degree of congestive failure was unusually severe and acute. Anti-syphilitic treatment was effective in arresting the progress of the condition, and in restoring the coronary flow and the cardiac function.

Recovery of this extent, and with this rapidity, is unusual in heart failure caused by syphilitic aortitis; and it could not have occurred if the inflammation had passed into the late fibrotic stage of the disease.

The future history of the patient will be interesting. There is no reason why the remission of his symptoms should not be permanent. Continuance of the slight aortic leak is a matter of no consequence, so long as the coronary flow remains good and the heart muscle continues healthy.

I am much indebted to Dr. C. S. Nicol for his valuable co-operation in the anti-syphilitic therapy, and to Dr. Aldren Turner for his advice upon the neurological problem.

CHRISTMAS SHOWS

The first posters were up three weeks before Christmas, which meant that work on the ward shows had begun once more. Michael Linnett promised us, in his own elegant style, that Aladdin would be a fine pantomime; other shows were advertised by saucy titles and captions. It seems no longer fashionable to paint a poster profile of your chief. But most of us love a good caricature, so perhaps the fashion will come back.

On Christmas Day the Residents, Jack and the Beanstalk and Aladdin were soon in their stride. Those less experienced quickly lost their shyness for they were warmly received and there were barrels of comfort. Sunday was a day of rest, and by Boxing Day all shows were going with a swing.

This time the Pot Pourri was presented on New Year's Day in the Cripplegate Theatre. Tickets were sold out a week before. But shows had to be cut and rehearsed afresh; all the worries of stage management had to be met with but one trial run. That there were so few hitches is to the credit of John Latham and John Pittman. Peter Carter faced us over the foot lights while scenes were changed and he made us feel that even if the curtain rose too soon it was in keeping with the spirit of the occasion.

Bourne Fools opened the evening with an appropriate and well rehearsed song of Christmas at Bart.'s The Light Bluemers let us see how an honest thirst might go unslaked in a nationalised pub. We chuckled, and hoped this nightmare would never come true. Harry Collymore sang to us about sweet chariots and, topically enough, how Israel entered Egypt. He well deserved the applause.

Then the Medical Unit's U-Nit Wits delighted us with some boisterous nonsense about the Laird of Stanmore and his ward round. There was a light quip here and there, but the main theme was happy carefree clowning.

Life in the wards from Rude Awakening portrayed what might happen if Matron chose her nurses less carefully; Miss Edwards sprang a surprise by vigorously satirising her own department, she also sprang a back somersault without breaking her neck. Geoffrey Singer made a most gaunt but lifelike sister; he told how he found surgeons didn't like virgins—if his make-up had been kinder we might have believed him. Perhaps he didn't intend us to; anyway, Matron was amused.

Aladdin was a complete pantomime in miniature with Bert Hooper as the villain and Norman Capstick some sort of dainty sprite. The cast have done this type of show three years running and have quite mastered the art. They finished with verses about members of the staff which were gentle and witty. Then came the interval, and most of the audience and players squeezed into the Bar.

The Pagetears had performed in Paget Ward only, so many of us saw them for the first time. The high light was an original and clever sketch of a foetus that spoke from within.

Jack and the Beanstalk was another pantomime intact. Robbed of the easiest way to get a laugh, that is, a skit about the hospital, this form of show is hard to put over. So it is commendable that both this and Aladdin were so entertaining. The principal boy was dressed briefly, and this shapely display diverted our attention from the rhyming couplets; moreover, we couldn't follow the antics of the dummy cow when we knew who waggled the tail, bless her. Munro-Faure was a realistic black mammie, and Wendle-Smith as the wizard, had scope for his magic.

Before the war, there were more individual acts at Christmas. Trevor Roberts returned to give us his Freda and then sewed up his fingers with a hair, just as he did in 1938. He is a perfect mime and it was exciting to see him again. His act uncovered a stage in our evolution, for two of his

asides, the broadest in the whole show, were received coolly. Have the women raised our standard of humour?

The Residents' Mystic Specs combined pantomime with light opera; they were handicapped by curtain trouble but, how they succeeded! W. S. Gilbert would hardly have been more telling; and the strut, the gestures that went with it . . . enough said. After that, a hurried finale, then the King, and it was over. Three and a half hours had just slipped away.

TADPOLE.

ALAN TOIS writes of the Residents' Show,

Even if the major part of the population had to go turkeyless this year the fortunate authors of the Bart.'s shows were presented with plenty to sink their teeth into. What with July 5th, the Tribunal about that fellow—what's his name?—at Westminster, circulatory upsets in high places and, this above all, the recent tighter ties between Bart.'s and the City Corporation — no one could have been happier since the *Daily Express* first found a loss in a nationalized industry.

Mr. Gordon Leslie, whose writing has for some time been marked with all the diffidence of Mr. Bevan towards the Conservatives, made the most of it on behalf of the Residents. Masculine to the last fairy they were emphatically the Lord Mayor's Show. Their scenes left the conventional borders of Little Britain and Giltspur Street and touched on the Old Bailey, the Mansion House and Snow Hill.

As usual, the House at this time of the year appeared to have been thoughtfully selected by the Governors from R.A.D.A. Mr. Lonsdale was as carefully polished a principal boy as his teeth, which glittered professionally in the foot lights till late on Boxing Day. He was supported by a cast including Mr. Royle, as a dyspeptic and apparently tabetic barman, and Messrs. Douglas and Tucker as the nice and naughty fairies, strongly differentiated by our friend Bert, who still takes his Christmas milk and grease-paint to R.S.Q.

Particularly appealing spots in this excellent show were Mr. Leslie, bearing a striking resemblance to Lord Justice Goddard, singing a rude song from the Bench about the traditions of Bart.'s; Mr. Whitely and Mr. Platt, looking remarkably like a couple of K.C.s singing a rude song about a couple of K.C.s; Mr. Matthias, appearing startlingly like a Lord Mayor, singing a rude song about a Lord Mayor; and Mr. Du Heaume, looking strongly like Mr. Du Heaume, singing with Messrs. Morgan and Rodgers a rude song about a spiv. There wasn't much subtlety or innuendo about the script. The only thing left blank was part of the verse.

Congratulations all round. All the performances went over tremendously. The sole people who found it completely incomprehensible were the patients.

MORANT BAKER CYST

By GEOFFREY R. FISK, M.B., B.S., F.R.C.S. (Edin.)

MORRANT BAKER was born in 1839 and died in 1896. He had a long and distinguished career at Bart.'s where he held many appointments and was Surgeon to the Hospital from 1882 to 1892. He wrote on a variety of subjects and has been accredited with the invention of the rubber tracheotomy tube, the "duplex" form of burner for gas and oil lamps, and the fixation of the knee after excision of the joint by means of two obliquely placed steel pins—a method of splintage which has only recently been reintroduced.

He is best remembered, however, for his description of cystic swellings around the knee and other joints which appeared in two papers in the St. Bartholomew's Hospital Reports of 1877 and 1885. The description of "Baker's cysts" has been passed from one textbook to another and considerable confusion exists as to what they really are. It is a salutary experience to read what Baker actually did describe and to realise what enormous strides have been made in the diagnosis and treatment of disease since his day. He was not the first to draw attention to the condition, as Adams in 1840 and Gruber in 1845 had already published full accounts of popliteal cystic swellings.

In his first paper ("The formation of synovial cysts in the leg in connection with disease of the knee joint") Baker described in some clinical detail eight cases of swellings around the knee joint. The underlying condition is either labelled "osteo-arthritis" or not diagnosed at all, but it is clear that his cases were a collection of widely differing conditions of which the only common feature was a cystic swelling near the knee in the presence of fluid in the joint.

His first case was almost certainly a neuropathic knee in which an acute effusion had occurred, this being a very common mode of onset. ("... she fell down and from that time the leg 'had been out of place' and dangling loose and useless. There has not been much pain.") The patient had a swelling in the calf which Baker considered to be

an escape of synovial fluid from the joint, which would be extremely unlikely. The condition, which proceeded to amputation, remained undiagnosed although Charcot had drawn attention to tabetic arthropathy in 1868. Another patient had an enlarged semimembranosus bursa which was treated by the insertion of a seton. This resulted inevitably in an acute septic arthritis of the knee and an emergency amputation of the leg!! Other cases appear to be gonococcal or tuberculous infection of the knee with abscesses tracking into the calf.

Baker came to the conclusion that "in cases of effusion into the joint . . . the fluid secreted may make its way out of the joint and form by distension of neighbouring parts a synovial cyst of large or small size." He not unnaturally advised against exploring or draining them.

In his second paper ("The formation of abnormal synovial cysts in connection with the joints") Baker records similar swellings associated with the shoulder joint (biceps tendon sheath and subscapularis bursa), the hip (psoas bursa), the medial epicondyle and the external malleolus (adventitious bursae) and the wrist (probably a compound palmar ganglion).

Discussion.

It is still widely held that a Baker's cyst is caused by an actual herniation of synovium through the intact capsule of a joint which later becomes "nipped off" to form a cyst. This belief is supported by Heggert and other writers, but Wilson and his colleagues as the result of careful clinical and anatomical studies came to the conclusion that the swelling always arose by the distension of a busa. They pointed out that firstly the cyst could always be shown to have arisen from a region in which a bursa was normally found, and that secondly its walls were intimately blended with surrounding muscle sheaths and tendons, which is a characteristic of bursae. Furthermore these swellings may arise without any joint effusion and are indistinguishable from those that are secondarily distended. They may become enlarged as the result of systemic disease, especially gonorrhoea, tuberculosis and gout; from constant trauma (viz., the occupational bursae of "weaver's bottom," "student's elbow," etc.); and they may even be formed adventitiously over bony prominences, such as over the medial malleolus by the rubbing of an ill-fitting boot.

Conclusion.

Where cysts occur in the region of joints an attempt should be made to understand their underlying pathology. Morrant Baker's most valuable contribution was to draw attention to the fact that such swellings may indicate disease of the associated joint and this should always be examined carefully. At the same time, the diagnosis of "Baker's cyst" for any fluid swelling in the region of the knee is to be strongly deprecated. If the name is to be used at all it should be confined to those conditions in which there is fluid in the joint in association with a cystic swelling near it, but as "Baker's cyst" does not imply an accurate pathological entity it is a term which would be better avoided altogether.

My thanks are due to Mr. Higgs for his help and criticism of this paper.

References.

Cravener. Journ. B. & J. Surg. 1932. 14. 186.
Gray's Anatomy.
Haggart. Journ. B. & J. Surg. 1938. 20. 363.
Haggert. Ann. Surg. 1943. 118. 438.
Mayerding & Van Delmark. J.A.M.A. 1943. 122. 858.
St. Bartholomew's Hospital Reports. 1877. 13. 245.
St. Bartholomew's Hospital Reports. 1885. 21. 177.
St. Bartholomew's Hospital Reports. 1896. 32. vi.
Snodgrass. Journ B. & J. Surg. 1936. 18. 229.
Wilson, Eyre-Brooke & Francis. Journ. B. & J. Surg. 1938. 20. 963.

NEW YEARS HONOURS FOR BART'S MEN

Knight

Griffiths, Hugh Ernest, C.B.E., M.S., F.R.C.S.

C.B.

Strugnell, Surg.-Rear Admiral Lionel Frederick, M.B., K.H.P.

BUXTON BROWNE PRIZE

Medvei, Victor Cornelius, M.D., M.R.C.P.

CORRESPONDENCE

UTOPIA ?

To the Editor, St. Bartholomew's Hospital Journal

Sir,

The correspondence on communism should provoke lively discussion. The idealism of communism is perhaps best exemplified by the Utopia of Sir Thomas Moore, but the same thought permeated such Elizabethans as Sir Thomas Wyatt—

"*How happy is he born and taught,*
Who serveth not another's will."

The attainment of a communistic Utopia was a frequent topic of discussion during the war, and the Russian resistance to Hitler's totalitarian military efficiency led men to hope that the Russian system of society was close to their ideal. Few seemed to have heard of the Red Terror, of the methods used by the Bolshevists to obtain control in 1917, of the trials or of the purges. Lenin, Trotsky and the original Bolshevists—professional revolutionaries—were nevertheless amongst the really great men of the present half century. Fundamentally, Lenin was vindictive, determined to overthrow the Czarist regime, as Krupskaya so clearly explained in her speech on the day after Lenin's death. To Lenin, Marxism was the only alternative to capitalism, but Lenin realized that the principle of—"From each according to his ability; to each according to his needs;" was more idealistic than practical. Consequently, until the frailties of human nature have been eliminated, there must be "The strictest control, by Society and the State, of the quantity of labour and the quantity of consumption." Domination by the Czars was therefore replaced by domination by the Communists. The necessity for discipline, the necessity for propaganda and the necessity for equivocal associations with other states were the three cardinal principles of Leninism. Cruelty and assassination are not censured so severely in Russia as in Western Europe. The Katyn murders were perpetrated by the Russians and not by the Germans, and I am surprised that Dr. Jopling, of all people, should have been persuaded by Russian propaganda to accept their story. I remember advising students, at the end of 1945, to read Wheeler-Bennett's "Brest-Litovsk," and Hoffman's Diaries, for it seemed to me that if Trotsky could be so difficult when Russia had completely collapsed militarily, the Russians would be impossible to appease in victory except by bribery or force.

Soviet communism leads in some directions to efficiency. Happiness is open to those who reach the high places. Suspicion and mysticism form part of the Russian character, and the Russian conceptions of honesty and truth are not the same as our own. What is, to us, a ridiculous attitude towards science is a fair example of the Russians' outlook on most things.

Yours faithfully,

WILFRED SHAW.

109 *Harley Street, W.*1.
18*th December*, 1948.

MOUNTAIN CLIMBERS DEATH

To the Editor, St. Bartholomew's Hospital Journal

Sir

In the *Times* of November the 9th, a mountain climber is reported to have died "as a stretcher party *carried him down* Aonach Dubh": he had fallen 200 feet. The italics are mine. I wonder whether he was carried down head first or feet first.

In the Arnhem film, shown some time back, I saw on the screen soldiers, presumably wounded, in hospital, being carried upstairs on stretchers *head first*. I felt a thrill of horror. They should have been carried up *feet first* — the foot end of the stretcher higher than the head.

If you want to kill a man suffering from shock, sit him up: if you are carrying him down an incline on a stretcher, carry him feet first—that with the jolts will finish him off.

All individuals suffering from shock, being transported, should be carried with the foot end of the stretcher elevated, higher than the head. That is the position of safety. This applies with greater force when descending a mountainside, because of the time. The position of the body alone may determine whether you arrive with a still living individual or with a corpse.

Yours faithfully,

R. H. PARAMORE.

4 *Bilton Road,*
Rugby. 9*th December*, 1948.

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BOOK REVIEWS

STERILITY AND IMPAIRED FERTILITY by C. Lane-Roberts, A. Sharman, K. Walker, B. P. Wiesner and Mary Barton. 2nd Edition, 1948. Hamish Hamilton Ltd., London. Pp. 400. Price 24s.

The second edition of this book is published nine years after the first. There has occurred a considerable increase of knowledge on the subject of impaired fertility in the last few years, particularly in relation to the male, and this is reflected in the present volume. No less than 177 pages are devoted to male sterility and infertility and the story is complete so far as present knowledge goes. A small chapter on artificial insemination is of interest and the authors give a balanced view and a timely warning on the pitfalls in the use of donated semen.

The latter half of the book is devoted to sterility and infertility in the female and reaches the same high standard as the section on the male. The whole volume gives an excellent account of the modern approach to this subject and there is an extensive list of references for those who wish to study the evidence on which statements are made about controversial subjects. Appendix 7 describes the interpretation of waking temperature records and explanatory charts are all that can be desired. Another appendix on the technique of post-coital and invasion test is valuable.

This book should be read by all who are interested in gynæcology but the authors have tried to cast the net wider and suggest that General Practitioners might be interested in it as the problem of infertility is so often brought first to the family doctor who can give excellent advice on many aspects of the subject.

INTRODUCTION TO DISEASES OF THE CHEST, by James Maxwell. 3rd Edition, 1948. Hodder & Stoughton Ltd., London. Pp. 307, with appendix of 66 photographs. Price 12s. 6d.

Dr. Maxwell, lately of this hospital, incurs a debt of gratitude from students for the lucidity of his book. The format remains as in previous editions. The first ninety pages deal with methods of diagnosis, and the physical signs are made as clear as they can be on paper. The rest of the book is devoted to diseases of the chest, and their treatment. The former are described fully but without unnecessary attention to rare syndromes; the latter has been revised where necessary. There is an appendix with some sixty X-ray photographs, which are printed as negatives thus avoiding any confusion by the student; they well demonstrate the author's insistence that X-rays are an essential part of the routine examination of the chest.

The printing and paper are so good that the publishers must be congratulated on being able to produce it at the price of 12s. 6d.

This is a book that can be confidently recommended to all who are starting their clinical training.

THE NURSING OF TUBERCULOSIS by O. V. Buxton and P. M. M. Mackay. John Wright & Sons, Bristol, 1948. Price 7s. 6d.

The sanatorium nurse will find described in this little book most of the procedures she will use in her work. It was a good idea to include a chapter on the psychology of tuberculosis; more might have been made of this. Unfortunately the authors have been unable to include mention of streptomycin, or the use of vitamin D in lupus.

MIDWIFERY, by Ten Teachers. Edited by Clifford White, Frank Cook and William Gilliatt. 8th Edition, 1948. Edward Arnold, London. Price 20s.

This book of Midwifery will continue to recommend itself to students whose interest in the subject has been already kindled by previous acquaintance, but we hesitate to recommend it as an introductory text, if only because insufficient emphasis has been laid on general principles.

This is but one of the problems of collective authorship, because in any such book, if the points which each author considers to be of special importance are to be adequately emphasised, there is little space available for general considerations, reiteration of points of special importance and other niceties which, out of place in a reference work, are of great importance in an introductory manual.

None the less, multiple authorship has the compensating advantage that theories and methods not generally acceptable are excluded, and no single author's whims and fancies are specially indulged. This book can, therefore, be relied upon to conform as strictly as is possible with orthodox obstetrical practice.

The student who does not consider readability a prime consideration will be well advised to use this text-book, the new edition of which is reliable, up-to-date, sensibly illustrated, and attractively produced. The text has been carefully revised and is singularly free from errors, but there is an irritating misprint on P.103 on which, for a picture of the birth canal (Fig. 60) we are referred to Fig. 16, which portrays a placenta succenturiata.

LIVING ANATOMY by R. D. Lockhart. Faber & Faber, London, 1948. Pp. 71, photos 149. Price 12s. 6d.

Professor Lockhart's photographic atlas of the human body in action is an interesting and stimulating volume, meriting great praise. In no other work of this kind are the actions of the surface musculature so extensively treated or so convincingly demonstrated. The medical student, at all stages of his career, will find in these pages not merely refreshment of memory regarding certain aspects of myology, but also, we believe, a salutary stimulus towards personal investigation of the role of individual muscles and muscle groups in a variety of operational circumstances. Much that these photographs show is familiar, if particularly well displayed; but much is new and not to be found elsewhere. Many of the pictures demonstrate especially the influence of gravity, posture and resistance upon muscle action and thus serve to correct the more limited impressions gained from cadaveric study and a reading of the formal texts.

The volume is attractively and excellently produced, and is modestly priced. The several models (male and female), the photographer, the author and the publishers have co-operated most successfully in the production of what cannot fail to be both a useful and a popular atlas.

AIDS TO ANAESTHESIA by V. Goldman. 2nd edition, 1948. Baillière, Tindall and Cox, London. Pp. 316. Price 7s. 6d.

To this edition several new chapters have been added and many old ones have been revised in order to bring the book into line with modern anæsthetic practice. Within its limited scope it is a useful volume for revising the subject, but the paper used for the introductory chapters would have been better spent perhaps in expanding on the later ones.

HYGIENE AND HEALTH EDUCATION for Training Colleges by M. B. Davies. 4th edition. 1948. Longmans, Green & Co., London. Pp. 438. Price 9s. 6d.

This is a comprehensive book designed to cover the course in Health Education for Teachers in training. It is vitally important that children during their school years should acquire the correct attitude towards anatomy, physiology, health and sex. This they can only do if the teachers themselves have a sensible approach, such as this book advocates.

NINETY-NINE. Editor: W. R. Bett. The Doctor Publishing Co., Ltd., London. Price 1s. monthly.

The days have passed when medical men considered that laymen should remain completely ignorant of progress in medical science, and although a little knowledge may well prove dangerous, it has been recognised that information based on scientific fact is preferable to knowledge derived from the quack. Several periodicals endeavour to educate the layman in matters relating to medicine, and *Ninety-Nine*, edited by a Bart.'s man, is undoubtedly the best of those with which we are acquainted.

The articles are mainly contributed by medical men writing under pseudonyms, and are of a high standard. Recent issues include articles on "The thyroid gland"; "Man's experiments on man," by Dr. J. L. Burn; "Hughlings Jackson and the thinking machine," by Dr. Edward Podolsky; "Fighting plague and pestilence in Edinburgh," and "Surgeons and surgery in Birmingham," by Laurence Dopson; a series of articles on "Some medical superstitions," by Warren R. Dawson; "David Livingstone," in a series entitled "He was a doctor"; Curare, by H. Lister; "Cancer and the atom bomb," by J. Lindsay Wilson; also, reviews, fiction, recipes, health topics in Parliament, annotations and other features.

This well-produced periodical should grace the table in every consulting room, but it is not only the layman who can be informed, as well as entertained, by the contents. While written in a popular strain, many of the articles might well be included in journals intended for the scientist, although it is very doubtful if the issues would then be made available for the small sum of one shilling.

J. L. T.

AIDS TO OPHTHALMOLOGY, by P. McG. Moffatt. 10th Edition, 1948. Baillière, Tindall & Cox, London. Pp. 266. Price 6s. 6d.

In this book the subject matter has been covered in greater detail than is possible in most of its companion volumes; it provides, in fact, all that a student will be required to know for his qualifying examinations. Treatment has been brought up-to-date, and the chapter on war injuries re-written. Some of the illustrations, which are in black and white, are a little difficult to appreciate (for instance, of the fundus), but that is probably a fault of the times rather than of the printers.

INTRODUCTION TO PHYSIOLOGY, by W. H. Newton, D.Sc., M.D. 1948. Edward Arnold, London. Pp. 284. Price 7s. 6d.

This is a book which deserves to become well known and widely read by medical student, nurse and general reader alike. To the medical student it may be recommended for reading after passing the First M.B. and before commencing the systematic study of physiology. It will satisfy his enthusiasm to begin more advanced studies and will provide a link with his previous training in Chemistry and Physics, which at times seem so remote from his final vocation. Further, it will offer a picture of the physiology of the body as a working whole, a picture which is so often lost, or never gained, in the mass of detailed knowledge which must eventually be acquirel.

Since the central nervous system is the main factor responsible for the integrative action of the various parts, the brain and spinal cord have received considerable attention. It is in this important field, however, that the general reader, without adequate scientific background, would probably be presented with something of an enigma. The physiology of the nervous system is described by analogy. Though this is fully justified, it has its limitations and may even become confusing, as for instance, the description of nerve impulses in terms of trains of gunpowder, water cisterns and machine-gun bullets, all within a single page.

The operative words of the title are "Introduction to . . ." While this fact should be borne in mind, the reader need have no fear that accuracy has been sacrificed to simplicity and brevity. Indeed, the statement that œstrogen and progesterone produce their growth effects on the mammary glands through the intermediary of the anterior pituitary is probably more accuate than the direct action on the glands ascribed to these hormones by some of the larger tomes of physiology.

An interesting innovation for a physiologist is the use of the word atrium for the receiving chamber of the heart. Until now this word has been confined to the anatomists. If only all physiologists would adopt it, it would eventually find its way into the clinical vocabulary and prevent much confusion.

In covering such a vast subject in 276 pages it is easy to make criticisms of omissions. All the important general principles are present and illustrated by numerical data. Further detail would only detract from the objects of the book, which is to provide a physiological outlook and not to cover the whole of physiology on an elementary level..

An index is provided, and the text is admirably illustrated with pen and ink sketches which, for clarity and simplicity, might well be emulated by the authors of the larger and more comprehensive text books of physiology.

The book is well-printed and reasonably well bound, and it of such a size that it may be easily carried in the pocket—a tribute too rarely applicable to medical books.

EMERGENCIES IN MEDICAL PRACTICE. Edited by C. Allan Birch, M.D., F.R.C.P. Compiled by eighteen Contributors. E. & S. Livingstone, Edinburgh, 1948. Pp. 468. Price 25s.

This book has been written for the general practitioner and the hospital physician to guide them in treating urgent illness and in handling critical situations. The editor has co-opted eighteen fellow contributors and together they have covered most crises that a doctor is likely to meet (apart from obstetrics and surgery). Enough is said to remind one of the salient features of diagnosis, and the treatment advised is usually clear, concise and up-to-date. The reader is told where the rarer sera and so on can be obtained.

It is a pity that the editor has included so much that is not emergency medicine—the sections on amenorrhœa, pernicious and microcytic anæmia, and tape-worms should be omitted and there is little point in parts of the chapter on emergencies at sea.

It is surprising to find that Dr. Gilchrist advises morphia in shock be given subcutaneously. Dr. Oakley's vital instruction about washing out the stomach in diabetic coma is well hidden in the text. Elsewhere there are minor faults, e.g., isotonic saline is sometimes called "normal," and phlebothrombosis is called "phlebitis."

The book has been well produced—the paper, printing and lay-out are of Livingstone's usual high standard. J. E. C.

ANATOMY, by A. D. Le Vay. E.U.P. Teach Yourself Series. 1948. Pp. 299. Price 4s. 6d.

In this volume, an attempt is made to expound human anatomy, including neurology, with some degree of detail, to the "layman." The task is formidable, but on the whole the book acquits itself well.

The approach is quite formal, following very much the pattern of standard anatomical textbooks, and divides the body up into the usual "parts" for topographical treatment. Illustrations are plentiful—an absolute necessity—and on the whole are of a satisfactory standard; many are taken from "Gray's Anatomy." The book is well written, and it is pleasantly surprising to find an adequate account of the human form in so short a space.

It cannot be said, however, that the book is likely to be of much value for medical students, for it says nothing which will not be found in any other book of anatomy intended for people who have access to material for dissection. Nevertheless, it is most probable that for nurses, physiotherapists this book will have considerable value.

BILHARZIAL CANCER. Radiological Diagnosis and Treatment, by M. A. Afifi. H. K. Lewis & Co. Ltd., 1948. Pp. 111. 60 illustrations. Price 16s.

In the early part the author discusses the incidence of Bilharzial and cancer in various organs, and discusses the relationship between the two. Diagnosis especially from the view of radiology, is illustrated with numerous excellent skiagrams. In the latter part treatment is discussed and at the end references are given to the extensive literature of the whole subject. The book should be of great interest to those likely to work in countries where Bilharzial disease is endemic.

AIDS TO EMBRYOLOGY by J. S. Baxter. 4th edition, 1948. Baillière, Tindall & Cox, London. Pp. 181. Price 5s.

To one previously unfamiliar with the Aids series this little book gives a surprisingly detailed account of general embryology. On comparison with the 3rd edition, published by Dr. R. H. Hunter in 1938, it is apparent that although the new author has not altered the general plan of the book he has brought it well up to date and corrected several errors by almost completely rewriting. For example the development of the alimentary system is much more clearly described. Unfortunately the section on the nervous system is still a little vague in parts.

For a summary of embryology the figures are good, clear and well labelled.

The main criticism of the book is that students finding it to be so detailed may be tempted to use it as a text book, for which it is inadequate, and not just as an aid. I. G. S.

MATERIA MEDICA AND PHARMACOLOGY FOR NURSES by G. Hindes and D. G. Ardley. Faber and Faber, London, 1948. Pp. 212. Price 7s. 6d.

Should the Minister of Health chance to read this book, he will be confirmed in his belief that the nurse's theoretical load is too heavy, especially when he reads such sentences as: "The original red dye stuff, sulphonamido-chrysoidin, breaks up in the body with the release of the white compound, para-aminobenzenesulphonamide" . . . (p. 151) There are five words about coramine, and two paragraphs on infusion of broom-tops. This is, however, the most up-to-date book on the subject, and includes streptomycin, folic acid and the anti-histamine drugs.

MODERN SURGERY FOR NURSES. Edited by F. Wilson Harlow. William Heinemann Ltd., London, 1948. Price 25s.

In this book nurses will find a most helpful and thorough guide to Surgical Nursery, with clear operation details and pre-and post-operative treatment and complications. This includes Gynæcology, Orthopædics, Ear, Nose, Throat and Eye Surgery, Venereal Disease and Anæsthetics.

Each section has been written by a surgical specialist in simple language, with good illustrations, and often well explained X-ray pictures. The special chapters on Diagnostic Tests and X-ray Preparations are most welcome, and will be a great help to many, including the harrassed Night Nurse who has "Request Cards" signed on the Night Round. This is also true of the last chapters on Diets and Invalid Cookery, etc., in a Surgical Ward.

Some Surgeons will not approve of the treatment of shocks by the application of electric blankets or cradles to the Patient. This was discredited during World War II, because the extra heat causes the body to sweat and give out warmth and fluid which it so badly needs at that time. Nor are knee pillows or Fowler's knee rests popular after operation, when so much preventive thrombosis therapy is being carried out.

25s. is expensive for nurses in training, but as a Study and Reference Book in Surgical Wards and Class Rooms, this book should prove most helpful. The Shakespearean quotations are very pleasing.

THE NATURE OF DISEASE INSTITUTE, First Annual Report, by J. E. R. McDonagh. Edited by Mark Clement. Pp. 174. Heinemann, London, 1948. Price 21s.

"Sir," said Dr. Johnson to an antagonist, with polite finality. "You raise your voice when you should reinforce your argument." Mr. McDonagh's Boswell (Mr. Mark Clement) should be reminded of this reproof, for this work, though sometimes abusive, is seldom convincing. It is obscure and conjectural when we should like it to be factual and concise.

Emotionally coloured diatribes are out of place in a work with such an austere title. The author's readiness to attack what he is pleased to term (more than once) the Medical hierarchy, and his indulgence in the luxury of apparently unrestrained criticism of modern medical practice, are both likely to preclude more than a cursory consideration of his views by physicians who are responsible for modern trends of medical opinion. This is the more unfortunate because, undoubtedly much of what the author has to say is interesting and some of it is important.

SPORT

CROSS COUNTRY CLUB

Only three matches were held in the first half of this season, but all members of the Club have been running with the United Hospitals Hare and Hounds, at Petersham. Results to date have been disappointing, and it has become increasingly evident that new members are urgently needed if the club is to keep up the high standard of last season. Nevertheless all credit is due to those stalwarts who turn out regularly every Saturday.

November 10th, v. University College
RESULT:
1ST U.C., 51 POINTS. 2ND, BART.'S, 54 POINTS.

This match, run over 6¼ miles at Chislehurst, resulted in a narrow victory for U.C., this being due to the excellent packing of their team from numbers 8—12. A lesson for Bart.'s.

Bart.'s positions were:
1st equal, J. A. Menon, J. I. Burn—39 mins. 30 secs.
5th, P. D. Matthews; 16th, G. Wallace;
7th, J. Dodson; 17th, J. Taylor;
13th, A. E. Dormer; 18th, J. Nielsen.
Team result: 1st U.C., 51 points.
2nd Bart.'s, 54 points.

December 4th, v. Bristol U. v. King's College v. I.C.
RESULT:
1. IMPERIAL, 34 POINTS 3. BRISTOL, 84 POINTS.
2. KING'S, 75 POINTS. 4. BART.'S, 153 POINTS.

A sadly depleted Bart.'s team was well and truly beaten by all three opponents, our packing was good, but in the wrong place! A. E. Dormer ran well to finish 13th.

LONDON UNIVERSITY CHAMPIONSHIPS
Held on December 18th at Roehampton

A record number of runners (140) took part in the Championships, 21 University College teams being represented. Bart.'s were 3rd in the corresponding race last year but could do no better than finish 11th this time. We were without the assistance of Menon and Matthews however, and those who did take part ran well against stiff opposition.

The course record was broken by no less than three men, the individual winner again being the University Captain, P. Griggs, of Q.M.C.

Incidentally the race was started by Arthur Wint, who was given a hearty reception by all present.

The team event was won by Imperial College with 47 points; Middlesex Hospital were 8th with 249 points; Bart.'s 11th with 296 points.

Bart.'s positions were:
13th, J. I. Burn. 93rd, R. Zakon.
24th, A. E. Dormer. 99th, J. Taylor.
65th, G. Wallace. 109th, J. Nielsen.

Fixtures in 1949 include Bristol, on February 5th, at Bristol; the triangular v. Middlesex and King's, on February 12th; and the Inter-Hospital Championships, on March 12th.

Winter training for all those intending to do athletics in the summer has now started. Sessions are held in the gym every Tuesday evening at 5.30 p.m., the club's coach, Mr. A. Drewer, being in attendance.

Athletes can receive specialised training in all branches of athletics, apart from the general training principles which are taught.

J. I. B.

R. U. F. C.

December 11th, v. Westminster Hospital
RESULT: WON BY 19 POINTS TO 8.

Bart.'s had a good win over the visiting side largely due to the magnificent loose play by the forwards; set scrums tended to be ragged but in the open the pack had the better of their opponents. The backs missed many chances and, apart from one sterling movement which ended in a try, never really got going. As a whole the side lacked dash and finish, a fact which kept the score down to its final level.

December 12th, v. Old Millhillians
RESULT: LOST BY 3 POINTS TO 8.

Showing improved form Bart.'s were unlucky to lose this game. After a rather timid start Bart.'s opened the scoring through a try by Picthall who backed up a break through in the centre; with the Hospital forwards in command of the game the first half ended with Bart.'s leading 3—0.

After the interval, play was indeterminate until the home side equalised with a penalty. After this the game opened up and became faster with Bart.'s having more of the ball; however, there was no further score until the last minute of the game when a run-away try put the opponents five points ahead.

January 1st, v. Catford Bridge
RESULT: WON BY 5 POINTS TO 0.

Played in wind and rain, this New Year's Day match was closely contested until Bart.'s scored through Mears, with Carter bouncing the ball on the post to convert. Bart.'s always had the measure of their opponents at forward and the backs were faultless in defence if not very powerful in attack. The side was unfortunate to loose Gompertz during the game through a kick on the head but the side hung on to their lead, leaving the field at full time, victorious if somewhat tired. J. L. C.